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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,207	02/12/2002	Charles E. Taylor	SHPR-01041USN SRM/SDS	5944
23910	7590	10/06/2003	EXAMINER	
FLIESLER DUBB MEYER & LOVEJOY, LLP FOUR EMBARCADERO CENTER SUITE 400 SAN FRANCISCO, CA 94111			TRAN. THAO T	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 10/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/074,207

Applicant(s)

TAYLOR ET AL.

Examiner

Thao T. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-44 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 95-97 of copending Application No. 10/074,082. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims in the copending Application contain the subject matter that is narrower in scope than the instant claims, rendering them obvious over each other.

Claim 95 of the copending Application includes all of the limitations recited in the instant claims 1, 24, and 34. Claim 95 of the copending Application further teaches an array of leading electrodes located upstream of a first array of electrode, making the claims of the copending Application narrower in scope than the instant claims. Therefore, the scope of the instant claims encompasses that of the claims of the copending Application, rendering them obvious over each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Objections

3. Claim 14 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 14 recites the length of the interstitial electrode to be the same as the second electrode; whereas independent claim 1 recites the length of the interstitial electrode to be substantially less than the second electrode.
4. Claims 6 and 44 are objected to because of the following informalities: claim 4, line 1; claim 44, line 2, "first electrode" should be changed to --second electrode--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 4-5, 8-24, 27-28, 31-37, 39-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee (US Pat. 4,789,801).

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Lee teaches a loud speaker (electro-kinetic air transporter-conditioner) which comprises an ion generator; the ion generator comprising an array of first electrodes 60', an array of second electrodes 58', and interstitial electrodes 62' interposed between second electrodes. The second electrodes having a leading portion and a trailing portion downstream of the leading portion, and the interstitial electrodes are shorter than the second electrodes. A voltage generator 12 coupled to the first and second electrodes, creating an airflow from the first to the second electrodes (see Figs. 1-3, col. 6, ln. 12-29)

In regards to claims 5, 8-10, 20-23, 31-33, 36-37, 39-43, Lee further teaches the interstitial electrodes to be wire-shaped or rod-shaped, and that the first electrodes emit negatively charged ions whereas the second electrodes are ion collectors. The interstitial electrodes are grounded. (See Fig. 3).

In regards to claims 11-12, 16-19, with respect to how the second electrodes would be removable and as to the purpose of removing the electrodes, it has been within the skill in the art that the manner of operation and intended use would have little patentable weight when an apparatus claim is being considered. See MPEP 2114.

7. Claims 1, 4, 8-19, 21-24, 27, 31-32, 34-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakakibara et al. (US Pat. 4,643,745).

Sakakibara teaches an air cleaner (air conditioner), comprising an ion generator, which comprises an array of first electrodes 11; an array of second electrodes 32'; and an array of interstitial electrodes 31' interposed between the second electrodes (see Fig. 9). The first electrodes are pin-shaped, and the interstitial electrodes are slightly shorter in length than the second electrodes.

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In regards to claims 11-12, 16-19, with respect to how the second electrodes would be removable and as to the purpose of removing the electrodes, it has been within the skill in the art that the manner of operation and intended use would have little patentable weight when an apparatus claim is being considered. See MPEP 2114.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2-3, 6-7, 25-26, 29-30, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee as applied to claims 1, 24, and 34 above.

Lee is as set forth in claims 1, 24, and 34 above and incorporated herein.

In regards to claims 2-3 and 25-26, Lee teaches the interstitial electrodes to be wire-shaped (see Fig. 3), but Lee does not teach the second electrodes to be fin-shaped.

However, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that the configuration of the electrode would have been a matter of design choice, that would bring forth maximal benefits attendant therewith. A fin shape would increase the surface area of the electrodes and hence would enhance the removal of ion particles in the air.

In regards to claims 6-7, 29-30, and 44, in light of the specification and the drawings, the examiner is interpreting that the interstitial electrodes are being connected to the second electrodes. Lee does not teach the interstitial electrodes being connected to the second electrodes

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or that these electrodes would have the same polarity. However, Lee teaches the interstitial electrodes to be grounded and that the use of the interstitial electrodes would increase precipitation efficiency (see col. 6, ln. 33-40).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have the interstitial electrodes being connected to the second electrodes, because this would be functionally equivalent and would give the same effects as the interstitial electrodes to be grounded.

10. Claims 2-3, 5-7, 20, 25-26, 28-30, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakakibara as applied to claims 1 and 24 above.

Sakakibara is as set forth in claims 1 and 24 above and incorporated herein.

In regards to claims 2-3, 5, 20, 25-26, 28, and 33, Sakakibara does not teach the second electrodes to be fin-shaped nor the interstitial electrodes wire-shaped, or rod-shaped.

However, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that the configuration of the electrode would have been a matter of design choice, that would bring forth maximal benefits attendant therewith. A fin shape would increase the surface area of the electrodes and hence would enhance the removal of ion particles in the air. And a rod shape would leave more room between the second electrodes for the air to move through.

In regards to claims 6-7, 29-30, and 44, in light of the specification and the drawings, the examiner is interpreting that the interstitial electrodes are being connected to the second electrodes. Sakakibara does not teach the interstitial electrodes being connected to the second electrodes or that these electrodes would have the same polarity. However, Sakakibara teaches

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the interstitial electrodes to be grounded and that the use of the interstitial electrodes would increase precipitation efficiency (see col. 6, ln. 61 bridging col. 7, ln. 3; claim 1).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have the interstitial electrodes being connected to the second electrodes, because this would be functionally equivalent and would give the same effects as the interstitial electrodes to be grounded.

Contact Information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 703-306-5698. The examiner can normally be reached on Monday-Friday, from 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 703-308-2462. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

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September 30, 2003



James J. Seidleck
Supervisory Patent Examiner
Technology Center 1700